imc LINK

Connectivity
Productivity
Data Security

imc
integrated measurement & control

Imagine it is one of those Monday Mornings...

Even before you have your first cup of coffee, the news hits: your team need to present an update of the ongoing field test program, including a review of this weekend's data collection, all by the 9:00 staff meeting.

What do you do? It is days worth of work to locate, process, and analyze all that data, not to mention creating the test reports, data graphs, and a presentation. It would seem to be an impossible task given the time available.

If only the data could have managed itself… Impossible? Since you have been using imc LINK to manage all the data from multiple test systems in parallel, as well as automatically running the daily reports, you have been on top of the entire test program from day one. Plenty of time for that cup of coffee!

CASE STUDY: AUTOMATIC TEST REPORTS READY AND WAITING

Our *Monday morning test reports* have already been created automatically by imc LINK. Here is how it works:

First, when our test engineer prepared his measurement using the imc STUDIO software included with his system, he had access to more than just input channel configuration. He was also able to efficiently configure several preprocessed onboard virtual channels for later use. Combined with GPS signals, local storage was specified and the entire configuration was tested locally and saved to the imc system's flash memory.
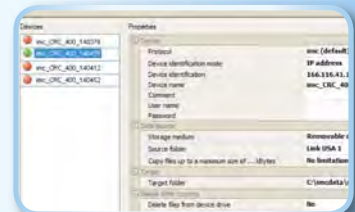
Second, because the test incorporates many channels of data collected onboard an operating passenger train, it was decided that the cost of a continuous network connection was not warranted; wireless LAN for data transfer is sufficient.

Since this network is only available when the train is in the station, data is securely stored locally in the imc data acquisition system, which is able to run completely autonomously. imc LINK is automatically managing the data transfer whenever the train is in range, as well as automatically downloading updated configuration information to the imc system when necessary.

Third, once imc LINK transfers data to the test engineer's PC (or server), imc LINK will use imc FAMOS sequences to further automatically analyze the data, and use the included imc Report Generator to merge new data with the report template.

For tests where real time information, such as position, is beneficial, imc LINK may also be used for live monitoring of status information, measurement data and GPS signals whenever network connectivity permits.

As an added bonus, it was a very productive move of our test engineer to preprocess signals local to the imc system using imc Online FAMOS, reducing bandwidth requirements and post processing time dramatically.

Whichever network path makes sense, our Monday morning test engineer will benefit from the connectivity, productivity, and data security of imc LINK!

With imc LINK, Remote is Closer Than You Think

All test environments face a common challenge: **data management**. "What is my test doing right now, and what are the results so far?" are critical concerns for anyone who depends on test results. imc LINK provides the necessary link between the user and the data source, managing the data transfer and test analysis automatically.

By enhancing the networking ability inherent to all imc data acquisition systems, imc LINK is especially useful in environments where the network connection might be unreliable or available only occasionally. And even with reliable network connectivity, imc LINK assists with the collection, processing, and storage of data coming from many different concurrent data acquisition sources, such as test stands or fleet vehicle testing.

By automatically transferring data from an imc system's local storage to a data management computer, imc LINK users have the data security of storage local to the acquisition, plus the convenience of fast and reliable data access local to the user.

DATA ACCESS IN MOBILE TESTING

Despite the nearly ubiquitous nature of wireless data networks (3G/4G, …), reliable data access on the road can still be hit-or-miss. imc LINK simplifies remote connections by managing data transfer of data files cached in the data acquisition system, while also providing real time GPS position and status information. Coupled with a 3rd party data modem, imc LINK creates a complete remote data solution.

And since every imc data acquisition system is already equipped for standalone operation, including a variety of onboard storage options and backup power, operations on the road are never a problem.

REMOTE ACCESS WHEN TESTING IN THE FIELD

As the network area becomes larger (i.e. wireless LAN to cellular to satellite), two things conspire against devices which rely on the ability to continuously stream data: connectivity becomes less reliable, and the data transfer speeds are reduced (and the costs are increased).

imc LINK overcomes these limitations by allowing data to be stored local to where it is acquired, and transferred asynchronously to the data collection computer: as bandwidth becomes available, all data collected since the previous transfer is automatically uploaded and processed.

AUTOMATED DATA MANAGEMENT FOR TEST STANDS

Even when connectivity is continuous and reliable, such as found in a test cell area, the ability of the imc LINK software to gather data from multiple test cells can be a significant time saver for test engineers.

Together with the imc FAMOS software's analysis capability, a test cell's data may be compiled into useful results, automatically, during the test run or as soon as the test is complete; with imc LINK, the challenge of waiting hours or days for someone to find the time to "crunch the data" can easily be a thing of the past!

imc Meßsysteme - Physical Measurement Engineering

By concentrating on testing productivity, imc Meßsysteme has refined an integrated approach to physical test and measurement for more than 20 years.

Today, imc produces sophisticated measurement and test control systems which are inspired by our customers' innovation.

Well suited for specialized mixed signal mechanical testing, most often needed by R&D engineers producing complex mechanical systems. This includes ground transportation such as cars, trucks, off highway equipment, and trains; as well as aerospace, power generation, and civil engineering.

In these situations, the demands of test engineers are for flexibility and scalable capabilities, especially where management understands that the efficient use of testing resources is all about the time-to-test.

And imc systems and software are up to t he challenge! In short, imc integrated measurement and control hardware and software is about meeting your development test needs today and tomorrow, when you need to have your results by yesterday.

Additional information: **www.imc-berlin.com**

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